IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Art Unit: 1796

Toshitsugu KIYOSADA et al. Examiner: BERNSHTEYN, MICHAEL

Serial No.: 10/505,346

Filed: July 20, 2005

For: Papermaking Chemical, Method for Manufacturing Same, and Paper Containing Same

DECLARATION

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Yuji BABA, declare that:

1. I am working with the inventors of the present application and am familiar with the subject matter disclosed in the application, the rejection of claims 16, 17, 27, 29-31, 34 and 35 under 35 U.S.C. §103(a) as unpatentable over Oguni et al. (U.S. Patent 5,698,627) in view of Butler (U.S. Patent 3,288,770) and claims 23, 25, 32, 33, 36 and 37 under 35 U.S.C. §103(a) as unpatentable over Oguni et al. in view of Butler as applied above, and further in view of Miyamoto et al. (JP 2000-160499 A), as well as the disclosures in the cited references.

2. I graduated from Tottori University with a Bachelor's degree in material science in March of 1995. I entered SEIKO PMC CORPORATION in April of 1995 and was assigned to the Polymer Research Laboratory. Since then I have been engaged in development of and research on papermaking chemicals.

3. I carried out an experiment to demonstrate the patentability claim 16 of the present invention over Oguni et al. in view of Butler.

Specifically, my experiment was conducted to show whether diallyldimethylammonium chloride taught by Butler would be a comparable replacement for monomer (a) of the present invention according to claim 16.

I selected the formulation and preparation of Working Example 13 of the specification for comparison, because this example employed, as monomer (a), PAHETMC, or 2-propene-1-aminium, N-hydroxyethyl-N,N,2-trimethyl chloride, which was considered to be structurally most similar to diallyldimethylammonium chloride used in Example 1 of Butler, among monomers (a) used in the working examples of the present specification.

I followed the exact steps of Example 13 except that PAHETMC was replaced with diallyldimethylammonium chloride. However, the obtained product was gelled and could not be evaluated.

If this experiment had produced some usable polymer for comparison, I intended to prepare 2-propene-1-aminium, N-propyl-N,N,2-trimethyl chloride as monomer (a), which was considered to be structurally most similar to diallyldimethylammonium chloride within the scope of claim 16. However, I did not conduct further experiments to prepare this compound for monomer (a) of the present invention,

since the comparative example using diallyldimethylammonium chloride formed an unusable gel.

In my opinion, the existence of a second double bond in diallyldimethylammonium chloride contributed to gelation of the polymerized product. Therefore, although Butler's monomer, which requires two double bonds in a molecule as an essential feature, may have some structural similarity to monomer (a) of present claim 16, a product obtained by polymerizing Butler's diallyldimethylammonium chloride with monomers (b), (c1) and (c2) as well as the crosslinking agent (d) of the present invention gelled and was completely useless as a papermaking additive.

The undersigned declarant declares further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed this 24th day of July, 2008.

Yuji Baba

Yuji BABA